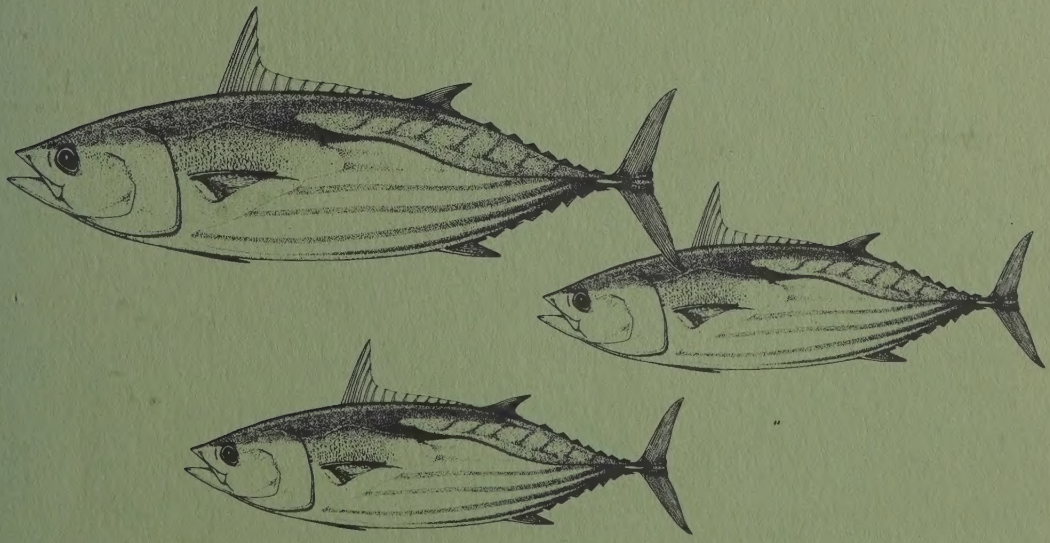
AUGUST 1975
No. 8

FISHING INFORMATION

Southwest Fisheries Center-La Jolla, California



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U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
SOUTHWEST FISHERIES CENTER
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FISHING INFORMATION

AUGUST 1975, No. 8

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PREFACE

This publication, Fishing Information, appears monthly and contains 1) fishery advisory information, 2) a narrative description of pertinent surface temperature conditions, 3) charts of winds and pressures for the eastern North Pacific, 4) charts of sea surface temperature for the North Pacific and eastern tropical Pacific, and 5) charts of subsurface temperature structure in the eastern North Pacific.

A supplement to Fishing Information appears at 15-day intervals throughout the year. This is a chart of sea surface temperature (contoured at 2°F (1°C) intervals) from Baja California to Vancouver Island out to about 135°W. Special bulletins are published in conjunction with the 15-day sea surface temperature charts which include short-term projections of albacore distribution and locations of productive fishing areas, information on oceanographic and atmospheric conditions, and other information as is appropriate during the albacore fishing season.

The Secretary of Commerce has determined that the publication of this periodical is necessary in the transaction of the public business required by law of this Department. Use of funds for printing this publication approved by the Office of Management and Budget, August 20, 1973; this approval expires June 1976.

Submitted for publication - September 23, 1975

CONTENTS

Page

Acknowledgements iv

Sea Surface Temperature and Environmental Conditions - August 1975, N.Clark and F.Miller . 1

ENVIRONMENTAL CHARTS, PACIFIC OCEAN - August 1975

Figure 1. Fifteen-year mean (1961-1975) observed sea level values of barometric pressure (millibars), resultant wind direction (degrees true), resultant wind speed (knots) and average wind speed (knots) regardless of direction 4

Figure 2. Observed sea level values of barometric pressure (millibars), resultant wind direction (degrees true), resultant wind speed (knots) and average wind speed (knots) regardless of direction 5

Figure 3. Mean sea surface temperature, eastern North Pacific Ocean. Square shows temperatures at weathership station. Numerals on shore are temperatures at coastal and lightship stations 6

Figure 4. Mean sea surface temperature chart, western North Pacific Ocean 7

Figure 5. Deviation of sea surface temperatures, eastern North Pacific Ocean from 20-year mean (1948-67). Hatched areas are colder in 1975 8

Figure 6. Deviation of sea surface temperatures, western North Pacific Ocean from 20-year mean (1948-67). Hatched areas are colder in 1975 9

Figure 7. Deviation of sea surface temperatures, eastern North Pacific Ocean from those of August 1974. Hatched areas are colder in 1975 10

Figure 8. Mean sea surface temperatures, eastern tropical Pacific Ocean. Numerals on shore are temperatures at coastal stations 11

Figure 9. Deviation of sea surface temperatures, eastern tropical Pacific Ocean from 20-year mean (1948-67). Shaded areas are colder in 1975. Contours are dashed in sparse data areas 12

Figure 10. Surface temperature and salinity and subsurface temperature structure from expendable bathythermograph observations between Seattle and Hawaii July 23-28, 1975 13

Figure 11. Surface temperature and salinity and subsurface temperature structure from expendable bathythermograph observations between San Francisco and Hawaii July 31 - August 5, 1975 14

ENVIRONMENTAL CHARTS ANALYZED BY:

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J. Renner (Figures 1,2,3,4,5,6,7,10,11 and 15-day Supplement)

TECHNICAL EDITOR:
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Fishing Vessels, *Cabrillo, Captain Joe Medina, Carol S., Christina C., Conquest, Elsinore, Evelyn Da Rosa, Gina Ann, Gina Karen, Jeanette C., Jo Linda, Kathleen, Larry Roe, Lucky Strike, Marco Polo, Maria C.J., Marietta, Pacific Queen, Pan Pacific, Polaris, Proud Heritage, Queen Mary, Raefello, San Juan (WX8016), Santa Rosa, Saratoga, Sea Treasure, Trinidad, Venturous.*

Expendable bathythermograph and salinity observations are made by the mates and engineers of the *Californian* and *Hawaiian Queen* of Matson Navigation Co. The data are processed under supervision of D.R. McLain at the NMFS Pacific Environmental Group, Monterey, using computer facilities of the Fleet Numerical Weather Center. The project is partially supported by the National Science Foundation and the Office of Naval Research under Government NAonr-9-74.

Sea Surface Temperature and Environmental Conditions

N. CLARK AND F. MILLER

Eastern North Pacific

Although sea surface temperatures increased over the entire eastern North Pacific during August because of seasonal warming, they did so at below-normal rates. In fact, temperatures off the North American coast from the Queen Charlotte Islands south to Cape Mendocino decreased slightly between July and August. The area of greatest warming occurred between 40°N and the Aleutian Islands where sea surface temperatures increased by 5 to 7°F (2.8 to 3.9°C).

The sea surface temperature anomaly pattern for August is similar to that for July with a large area of 1 to 3°F (0.6 to 1.7°C) above-normal temperatures extending across the central eastern North Pacific and 2 to 5°F (1.1 to 2.8°C) below-normal temperatures between 35°N and the Aleutian Islands, in the Gulf of Alaska, along the western coast of North America, and a large region extending westward from Baja California to the Hawaiian Islands. The central region of above-normal temperatures decreased in size and intensity during August, while below-normal temperatures in the Gulf of Alaska and offshore the U.S. west coast became even cooler.

Sea level pressures were up to 5 millibars above normal over much of the eastern North Pacific during August, resulting in a strong high pressure cell centered near 38°N and 150°W with a ridge of high pressure extending northeastward over the Pacific Northwest. Strong north-to-northwesterly winds along the U.S. west coast caused increased upwelling and colder water temperatures from Cape Flattery south to Baja California.

Western North Pacific

The large area of relatively cool water in the central portion of the western North Pacific that began forming in May persisted through August with negative departures from normal of 2 to 5°F (1.1 to 2.8°C). The sea surface temperature anomaly pattern for August also shows below-normal temperatures east of Japan and in a band between 20°N and 25°N that stretches eastward from 135°E into the eastern North Pacific.

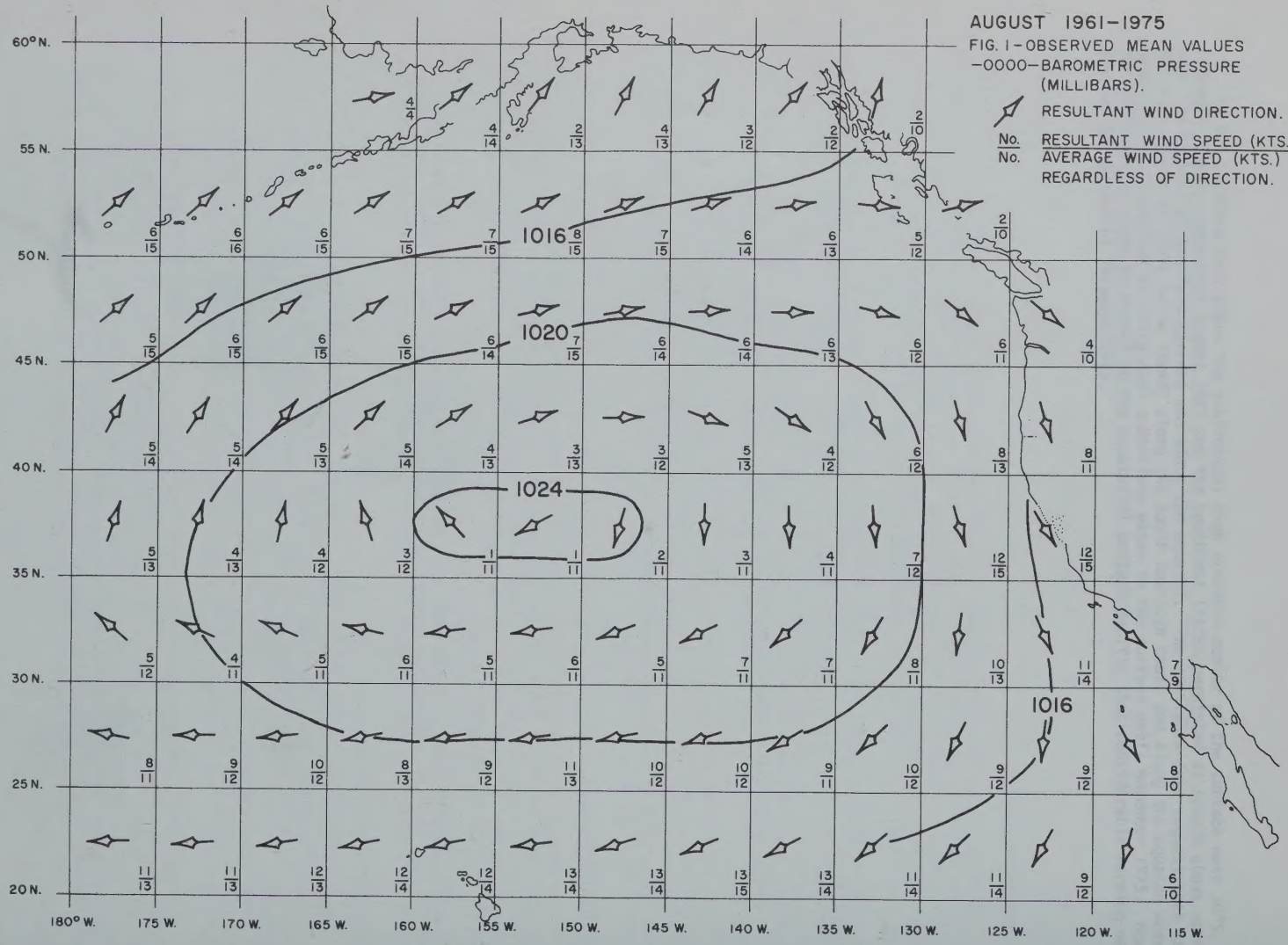
Areas of above-normal temperatures expanded during August, and the anomaly pattern shows 1 to 3°F (0.6 to 1.7°C) above-normal temperatures between 25°N and 30°N and over a large region between 145°E and 160°E and northward from 25°N to the Kuril Islands and the Kamchatka Peninsula.

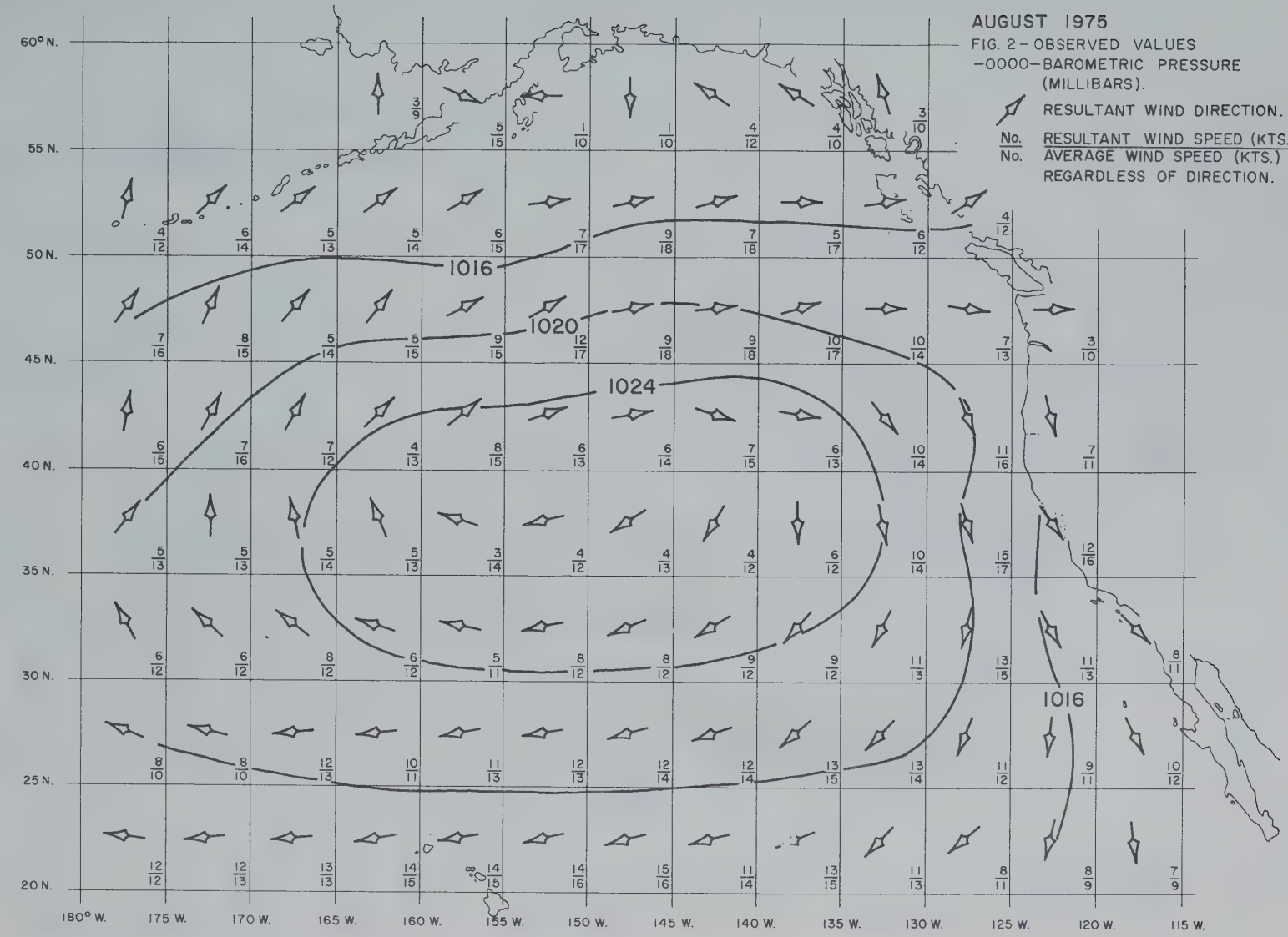
Eastern Tropical Pacific

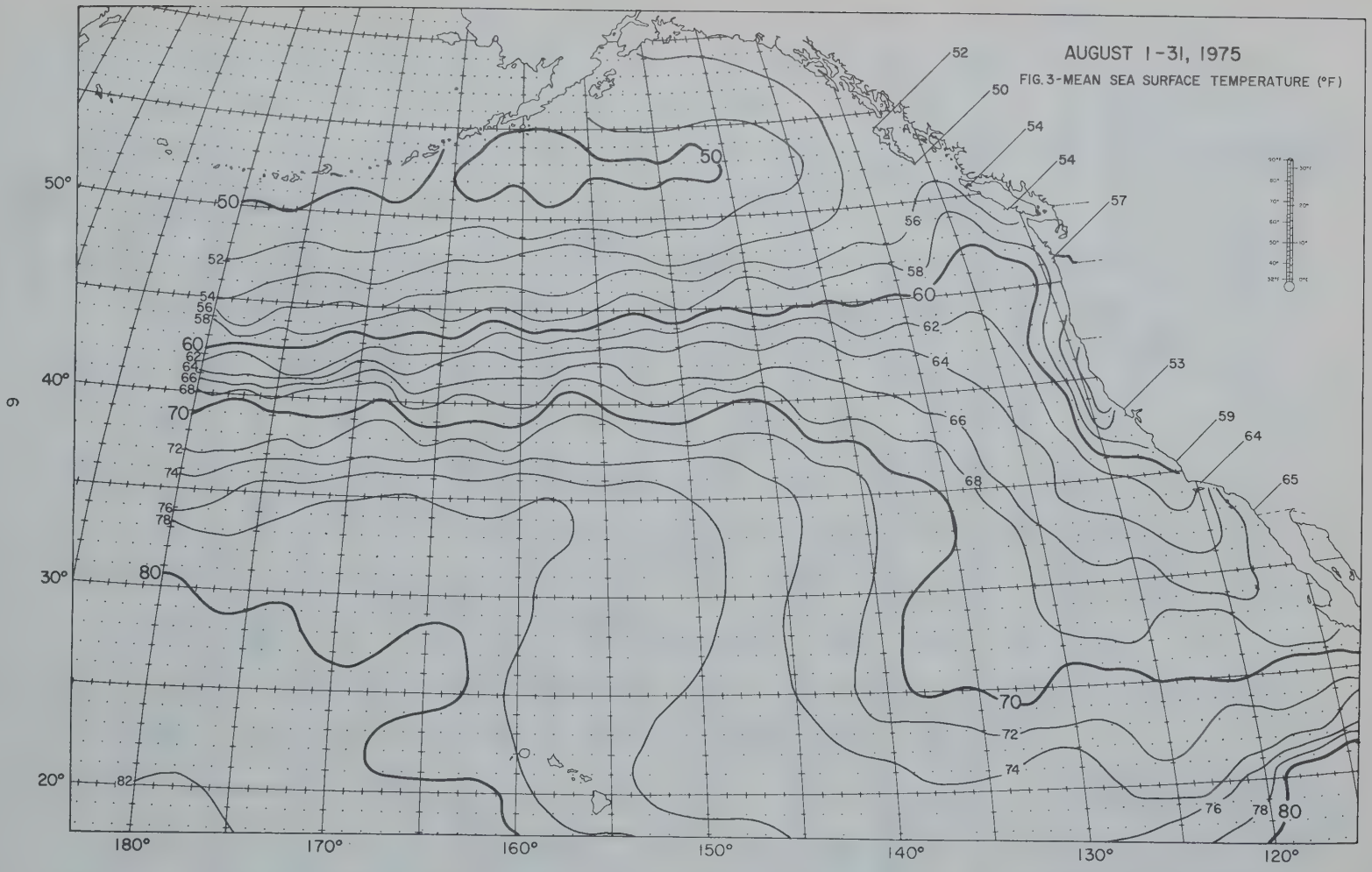
During August of most years the sea surface temperatures (SST) decreases an average of 2°F (1.1°C) in the Peru Current and along the equator to 5°S and east of 110°W. At mid-winter in the southern hemisphere temperatures normally decrease less than 1°F (0.6°C) west of the Peru Current and between 5°S and 30°S. In the northern hemisphere the SST in August normally increases with the largest increase of 2°F to 4°F (1.1-2.2°C) occurring along the coast of Baja California, Mexico. In areas of frequent tropical storm activity the SST will usually show a decrease along the storm tracks in association with increased surface winds and extensive squally weather.

During August 1975 temperature changes were very close to those expected for the season (Figure 8). The patterns of temperature anomalies (Figure 9) were not significantly different from those in July 1975 over most of the eastern tropical Pacific. The one exception to this occurred east of 110°W from 10°N to 18°N where five tropical storms (two later became hurricanes) formed and moved westward through the fishing grounds. During July and August 1975 nine storms moved westward between 10°N and 15°N and SST's were lowered as much as 6°F (3.3°C) below normal in the wakes of the storms between 105°W and 110°W. This was the area where most of the storms intensified rapidly (Figure 9).

In the southern hemisphere the subtropical high pressure center at the surface near 30°S, 90°W remained intense throughout August 1975 and the southeast trades persisted at speeds above normal over the regions of the Peru Current and along the equator. The available data suggest that the SST will remain slightly below normal along the South American coast and along the equator where upwelling will continue to bring cool subsurface water to the surface until November 1975. However, the SST's are so close to normal in the equatorial eastern Pacific that considerable warming may develop by the end of December 1975.

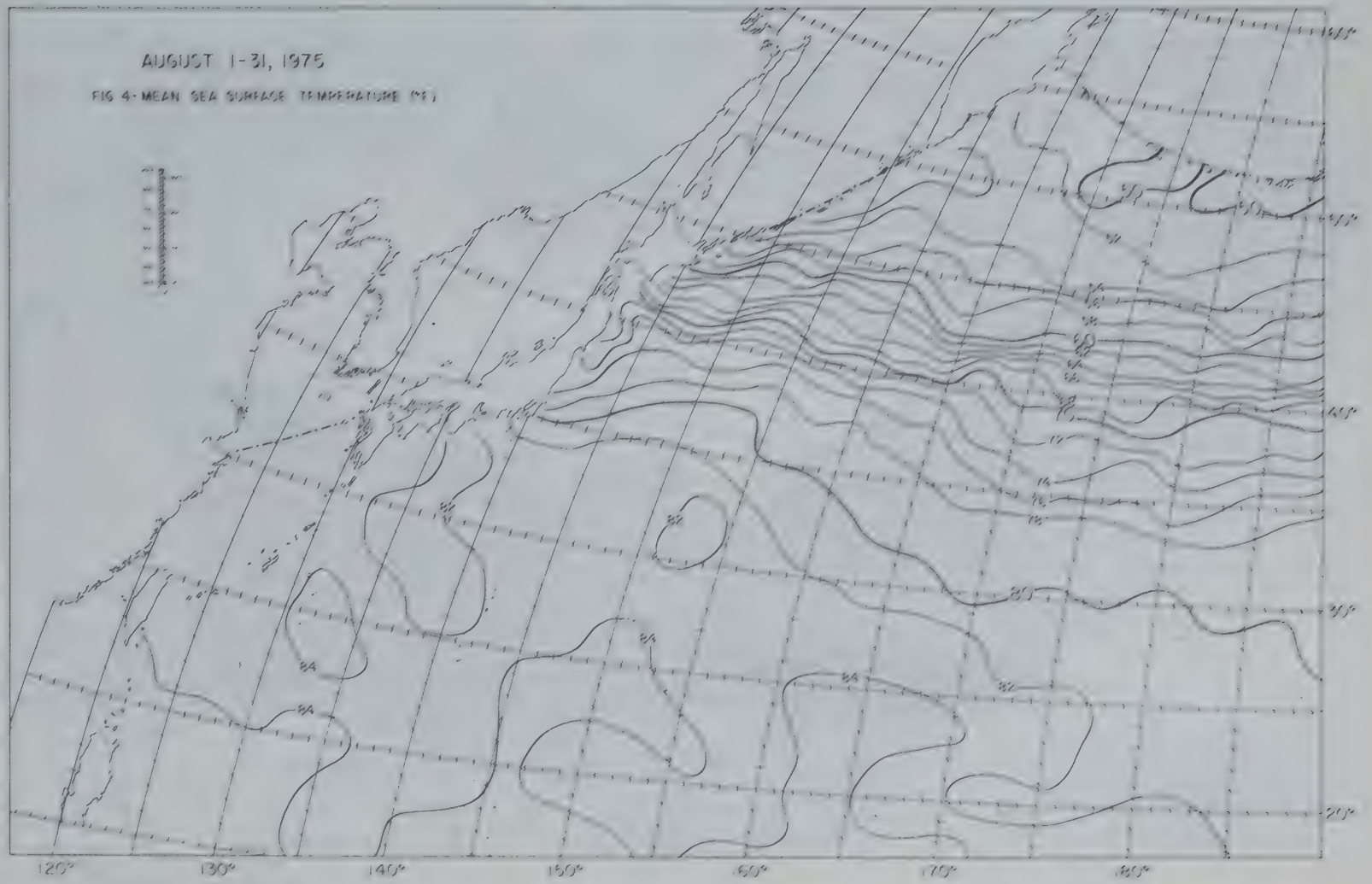

AUGUST 1961–1975
FIG. 1 – OBSERVED MEAN VALUES
–0000– BAROMETRIC PRESSURE (MILLIBARS).
RESULTANT WIND DIRECTION.
No. RESULTANT WIND SPEED (KTS.)
No. AVERAGE WIND SPEED (KTS.) REGARDLESS OF DIRECTION.
1016
1020
1024
1016
60° N.
55 N.
50 N.
45 N.
40 N.
35 N.
30 N.
25 N.
20 N.
180° W.
175 W.
170 W.
165 W.
160 W.
155 W.
150 W.
145 W.
140 W.
135 W.
130 W.
125 W.
120 W.
115 W.

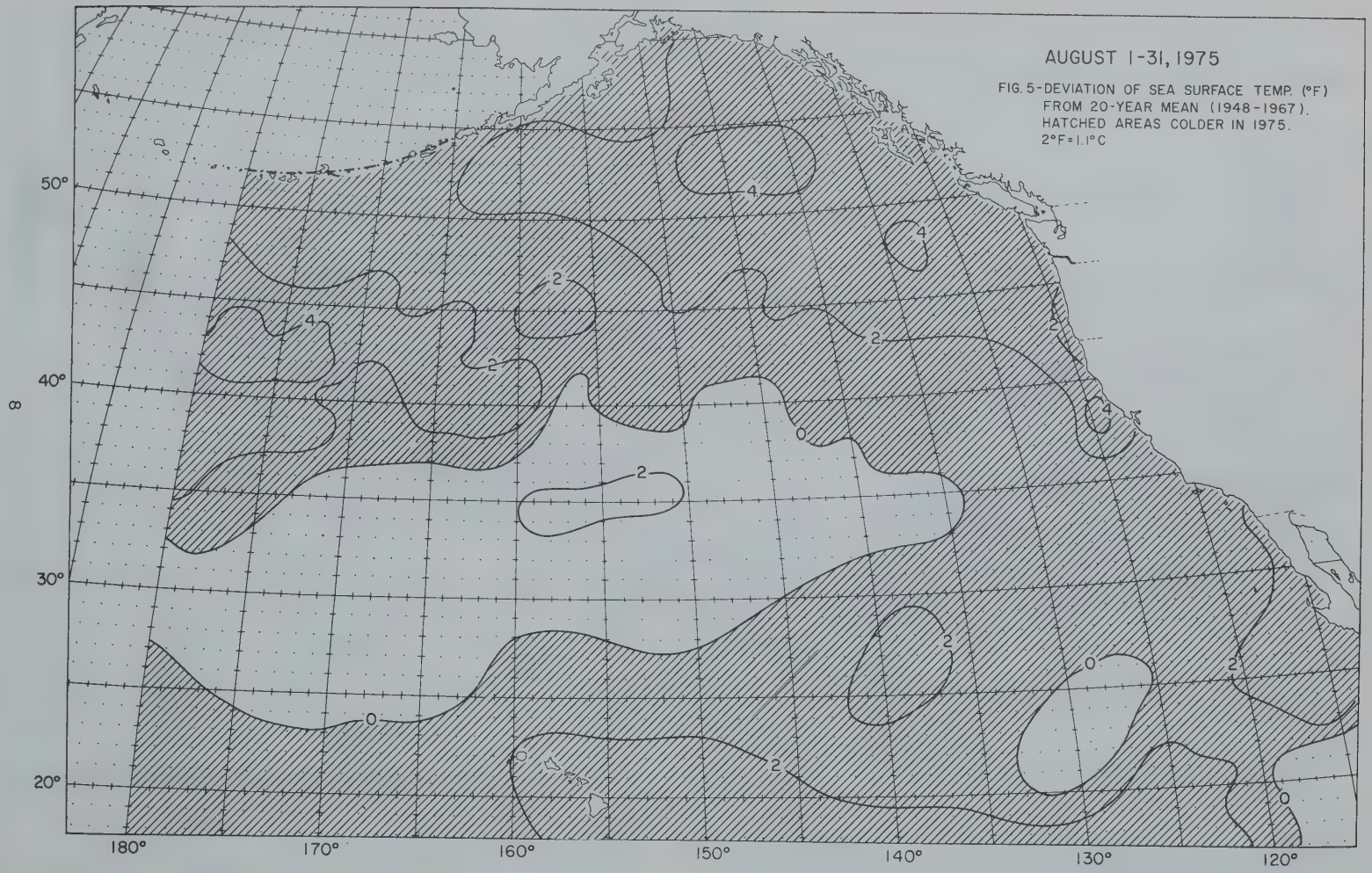

AUGUST 1975
FIG. 2 - OBSERVED VALUES
-0000- BAROMETRIC PRESSURE (MILLIBARS).
RESULTANT WIND DIRECTION.
No. RESULTANT WIND SPEED (KTS.)
No. AVERAGE WIND SPEED (KTS.) REGARDLESS OF DIRECTION.
1016
1020
1024
1016
60° N.
55 N.
50 N.
45 N.
40 N.
35 N.
30 N.
25 N.
20 N.
180° W.
175 W.
170 W.
165 W.
160 W.
155 W.
150 W.
145 W.
140 W.
135 W.
130 W.
125 W.
120 W.
115 W.

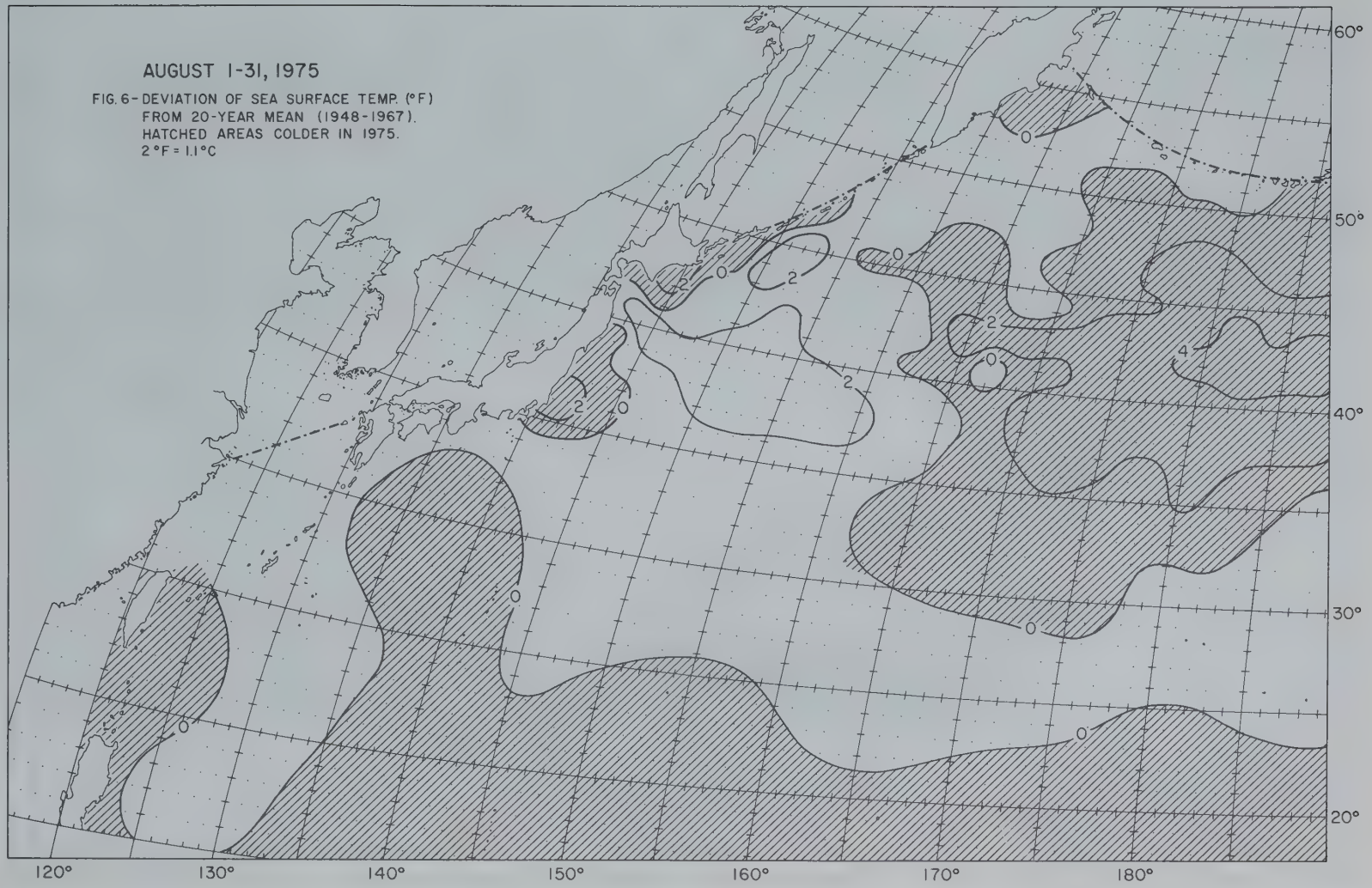

AUGUST 1-31, 1975
FIG. 3-MEAN SEA SURFACE TEMPERATURE (°F)
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
50
52
54
56
58
60
62
64
66
68
70
72
74
76
78
80
82
52
50
54
54
57
53
59
64
65

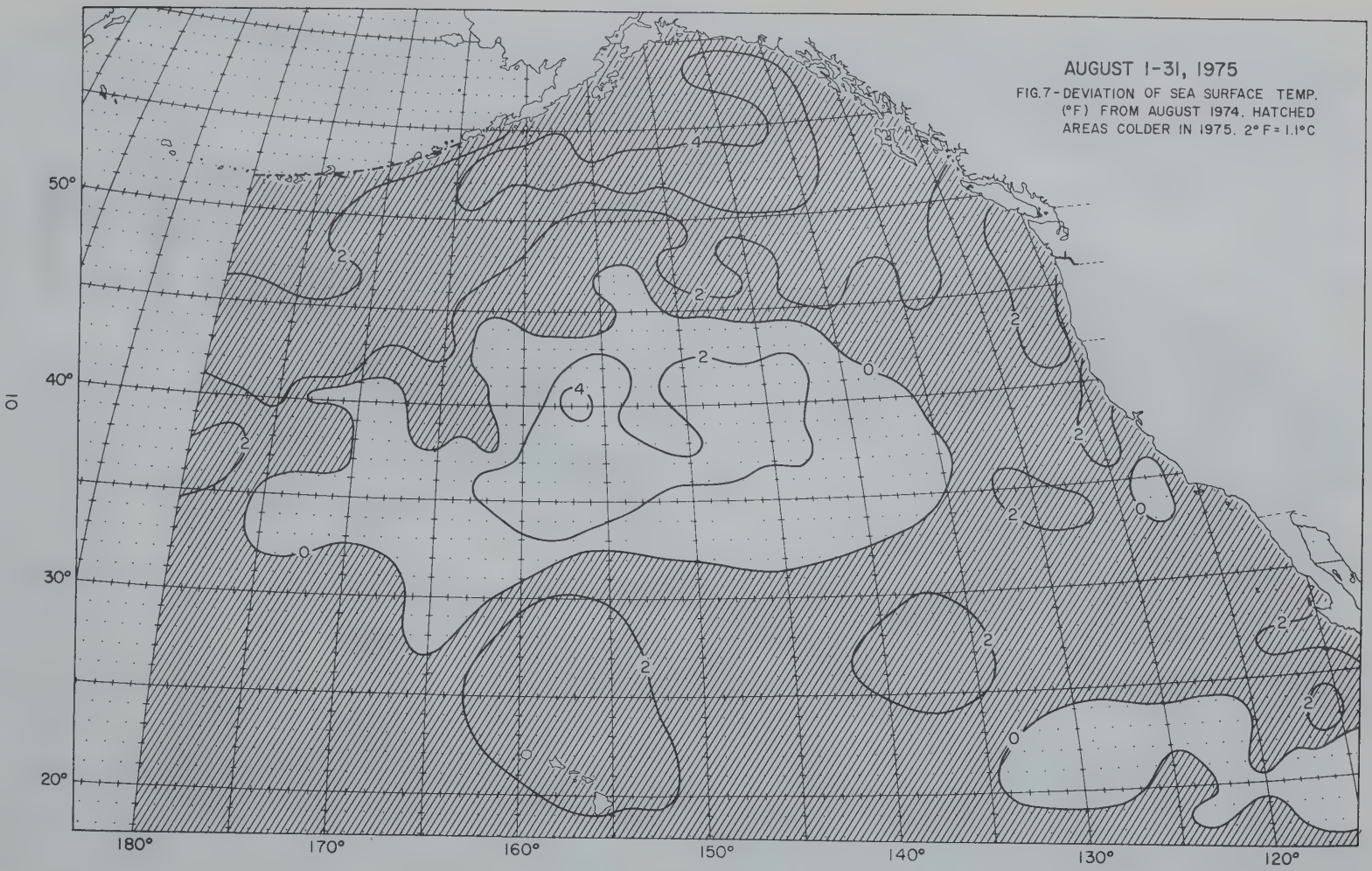
AUGUST 1-31, 1975

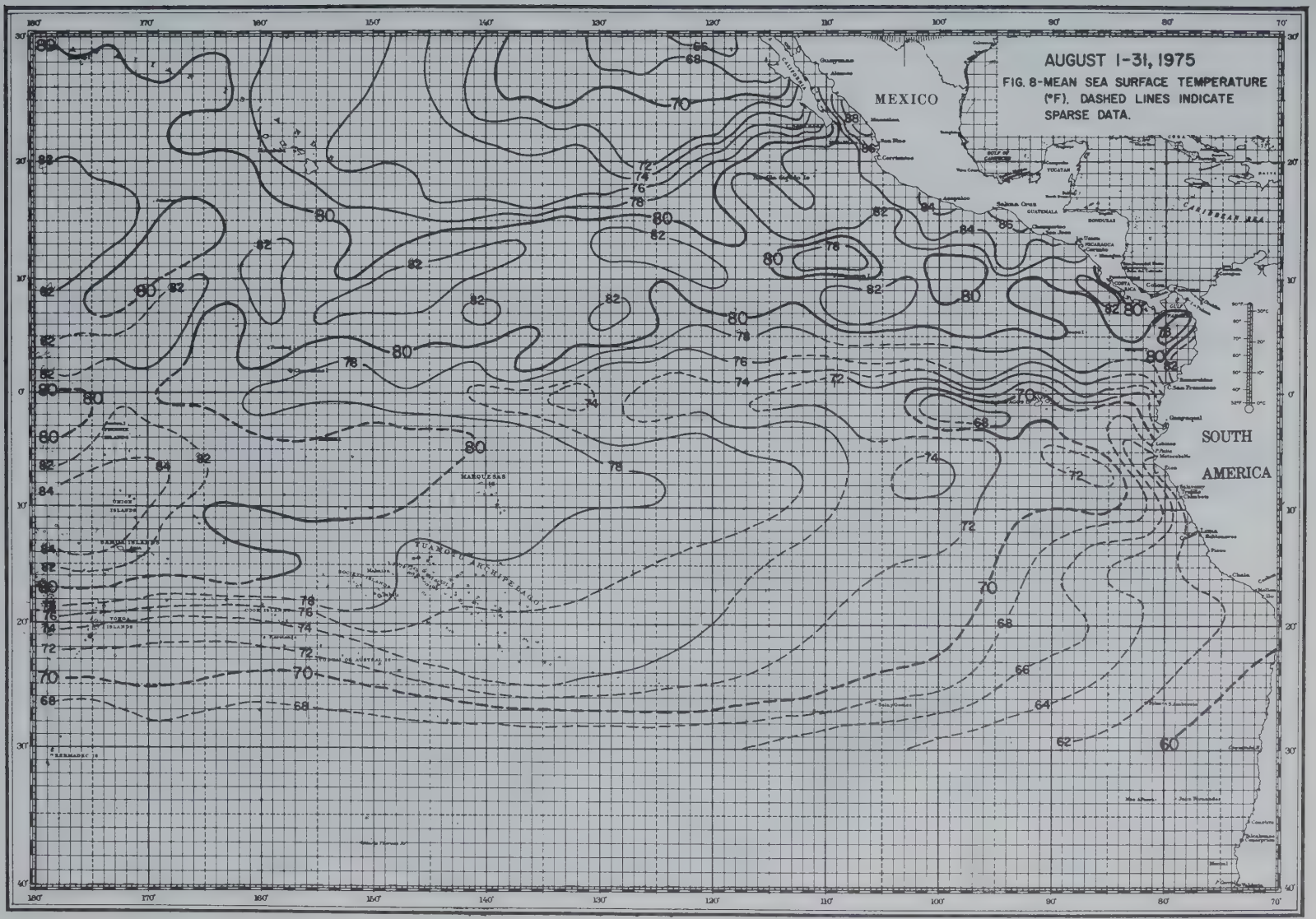
FIG 4- MEAN SEA SURFACE TEMPERATURE (°F)




AUGUST 1-31, 1975
FIG. 5-DEVIATION OF SEA SURFACE TEMP. (°F) FROM 20-YEAR MEAN (1948-1967). HATCHED AREAS COLDER IN 1975. 2°F=1.1°C
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
4
2
0


AUGUST 1-31, 1975
FIG. 6- DEVIATION OF SEA SURFACE TEMP. (°F) FROM 20-YEAR MEAN (1948-1967). HATCHED AREAS COLDER IN 1975.
2 °F = 1.1 °C
60°
50°
40°
30°
20°
120°
130°
140°
150°
160°
170°
180°
0
2
4


AUGUST 1-31, 1975
FIG. 7 - DEVIATION OF SEA SURFACE TEMP. (°F) FROM AUGUST 1974. HATCHED AREAS COLDER IN 1975. 2° F = 1.1°C
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
4
2
0
2
2
2
4
2
0
2
2
0
2
2
2
0
2
2
0
2
2
0
2
2
0
2
2
0


AUGUST 1-31, 1975
FIG. 8-MEAN SEA SURFACE TEMPERATURE (°F). DASHED LINES INDICATE SPARSE DATA.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
GULF OF MEXICO
GUATEMALA
HONDURAS
NICARAGUA
COSTA RICA
MARQUESAS
TUAMOTU ARCHIPELAGO
TONGA ISLANDS
COOK ISLANDS
UNION ISLANDS
BERMUDA ISLANDS
180°
170°
160°
150°
140°
130°
120°
110°
100°
90°
80°
70°
30°
20°
10°
0°
40°

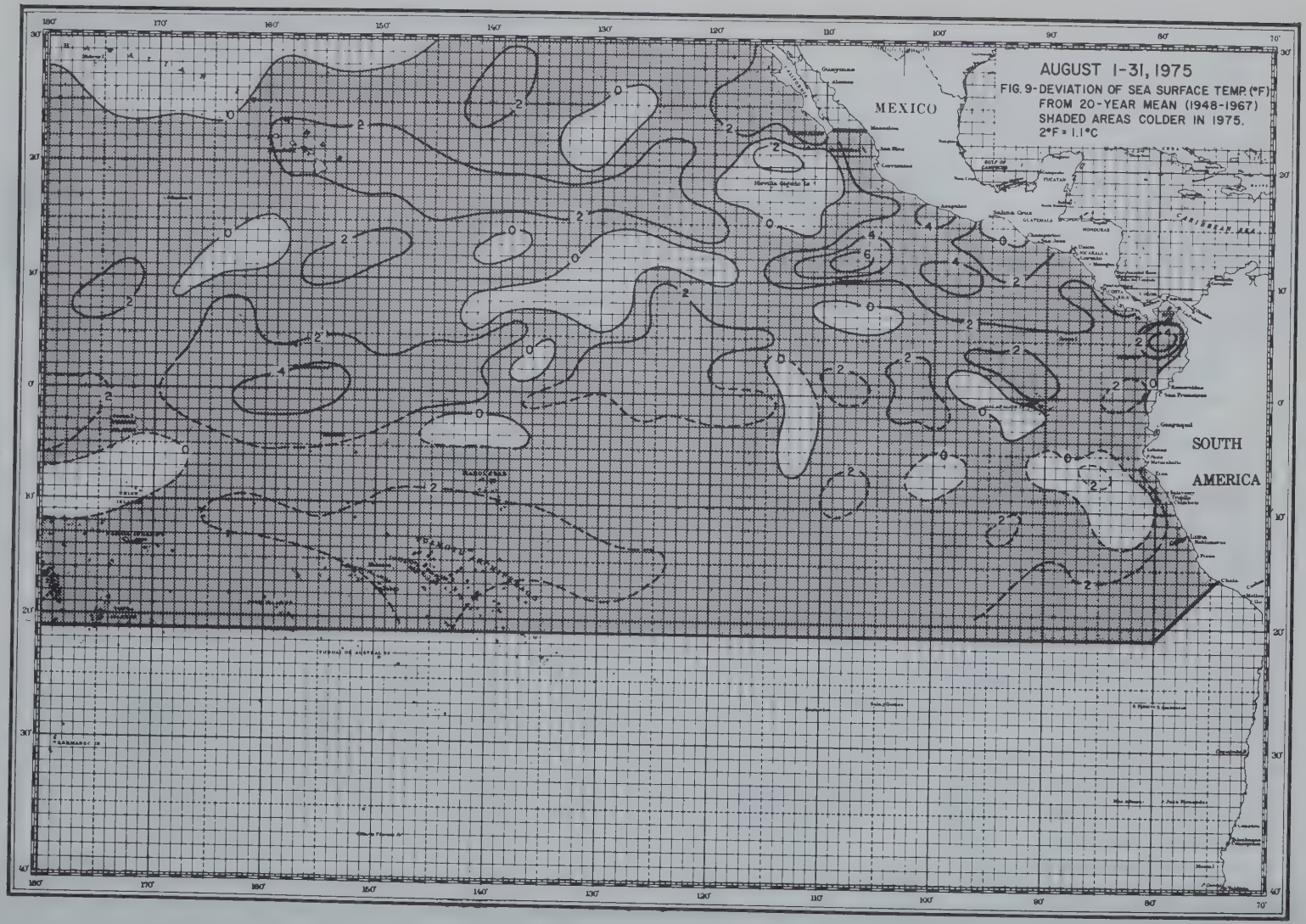
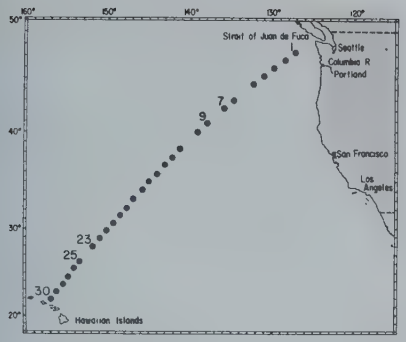
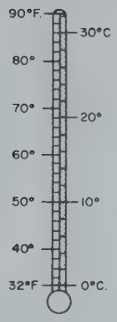

AUGUST 1-31, 1975
FIG. 9-DEVIATION OF SEA SURFACE TEMP.(°F) FROM 20-YEAR MEAN (1948-1967) SHADED AREAS COLDER IN 1975.
2°F = 1.1°C
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
GULF OF MEXICO
YUCATAN
GUATEMALA
HONDURAS
NICARAGUA
COSTA RICA
PANAMA
GALAPAGOS IS.
BARBADOS
180°
170°
160°
150°
140°
130°
120°
110°
100°
90°
80°
70°
40°
30°
20°
10°
0°

FIGURE 10





HONOLULU — SEATTLE
(Makapuu Pt. — St. of Juan de Fuca)

JULY 23-28, 1975

CALIFORNIAN

VOYAGE 260

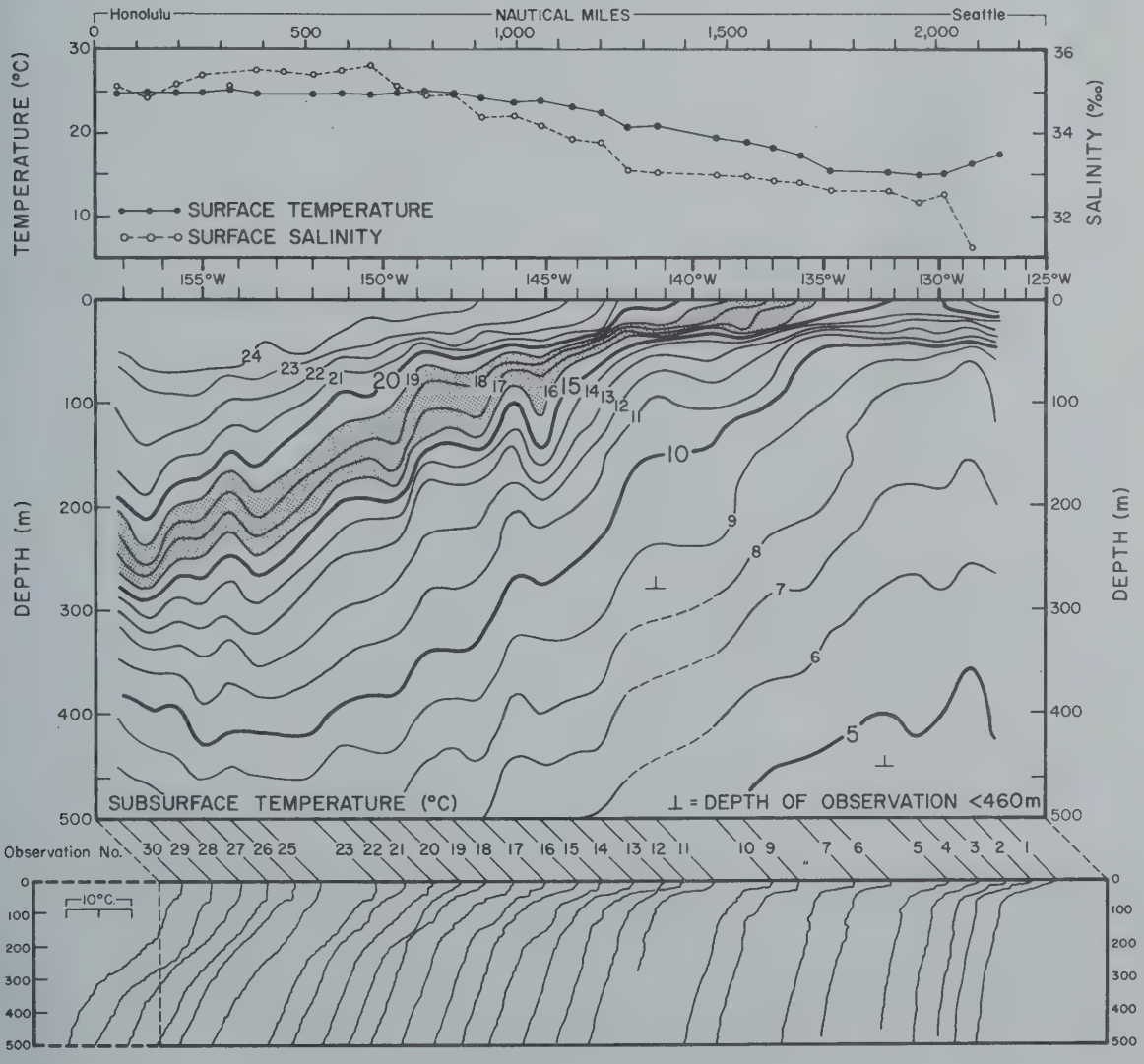
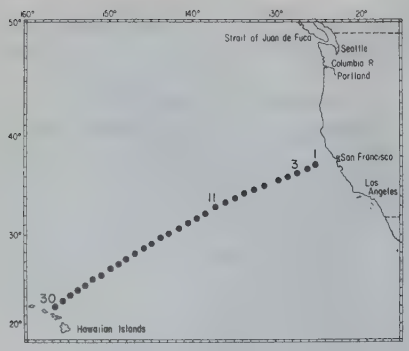
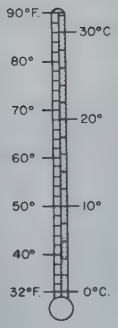


FIGURE 11



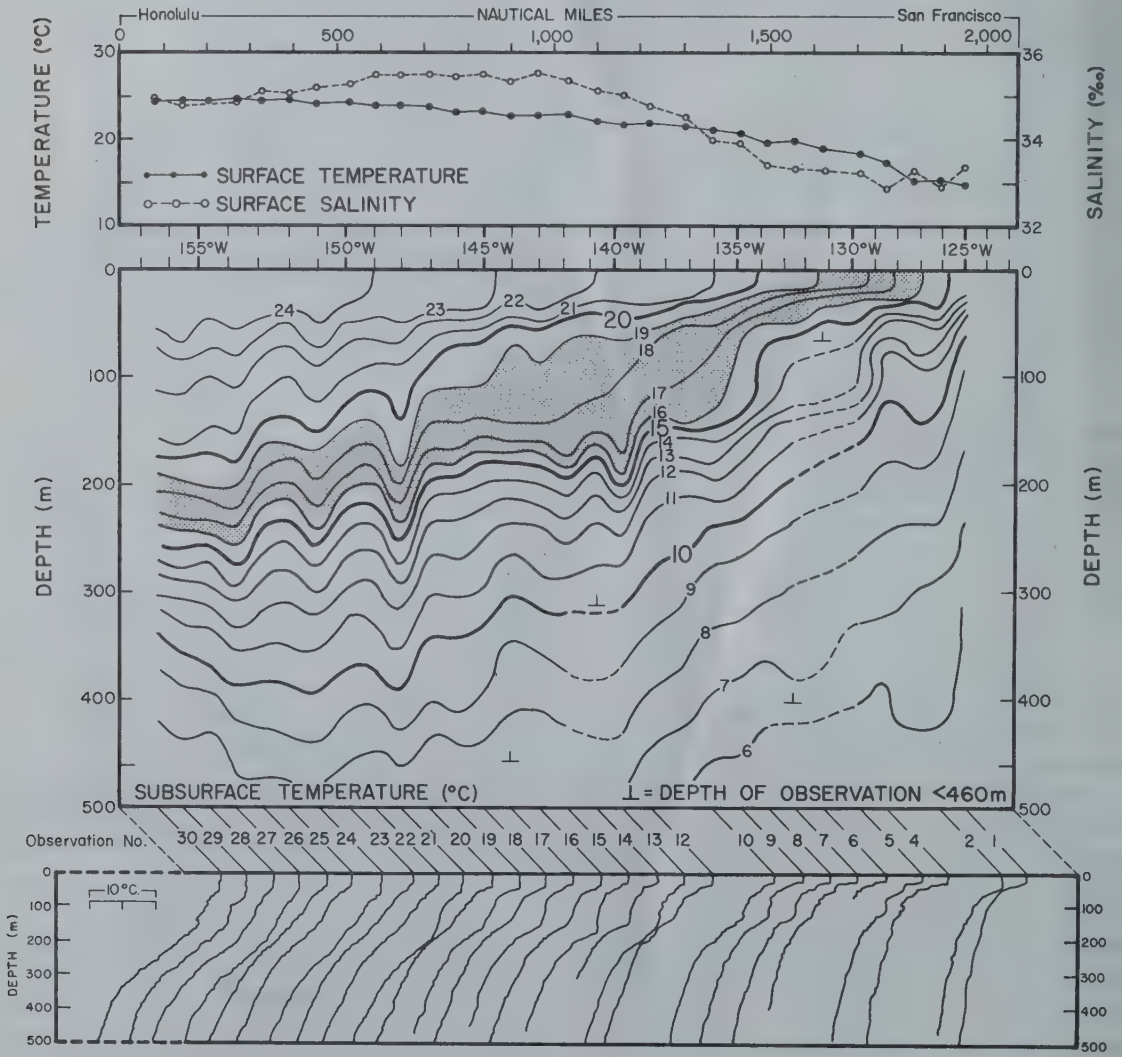


HONOLULU – SAN FRANCISCO

JULY 31 – AUGUST 5, 1975

HAWAIIAN QUEEN

VOYAGE 162



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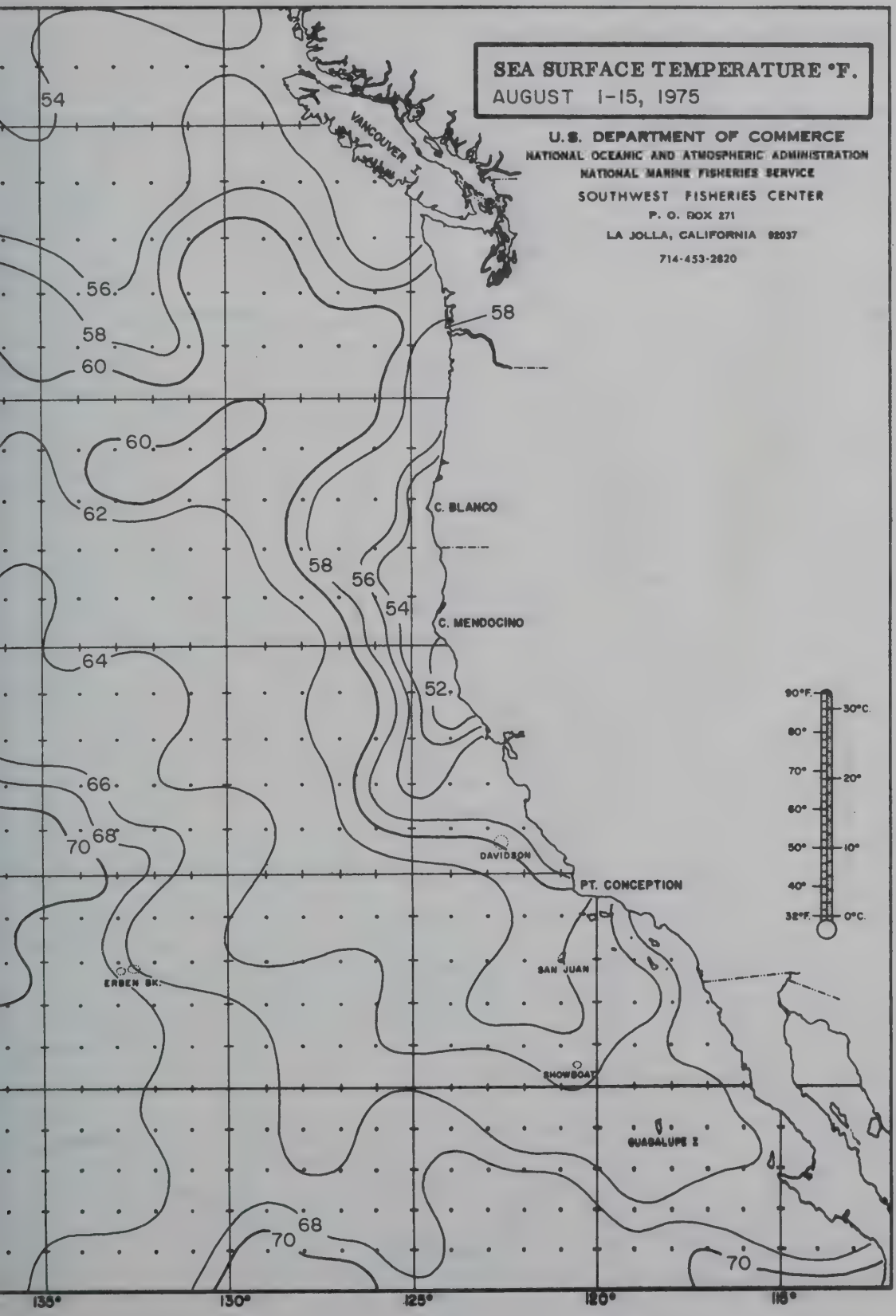

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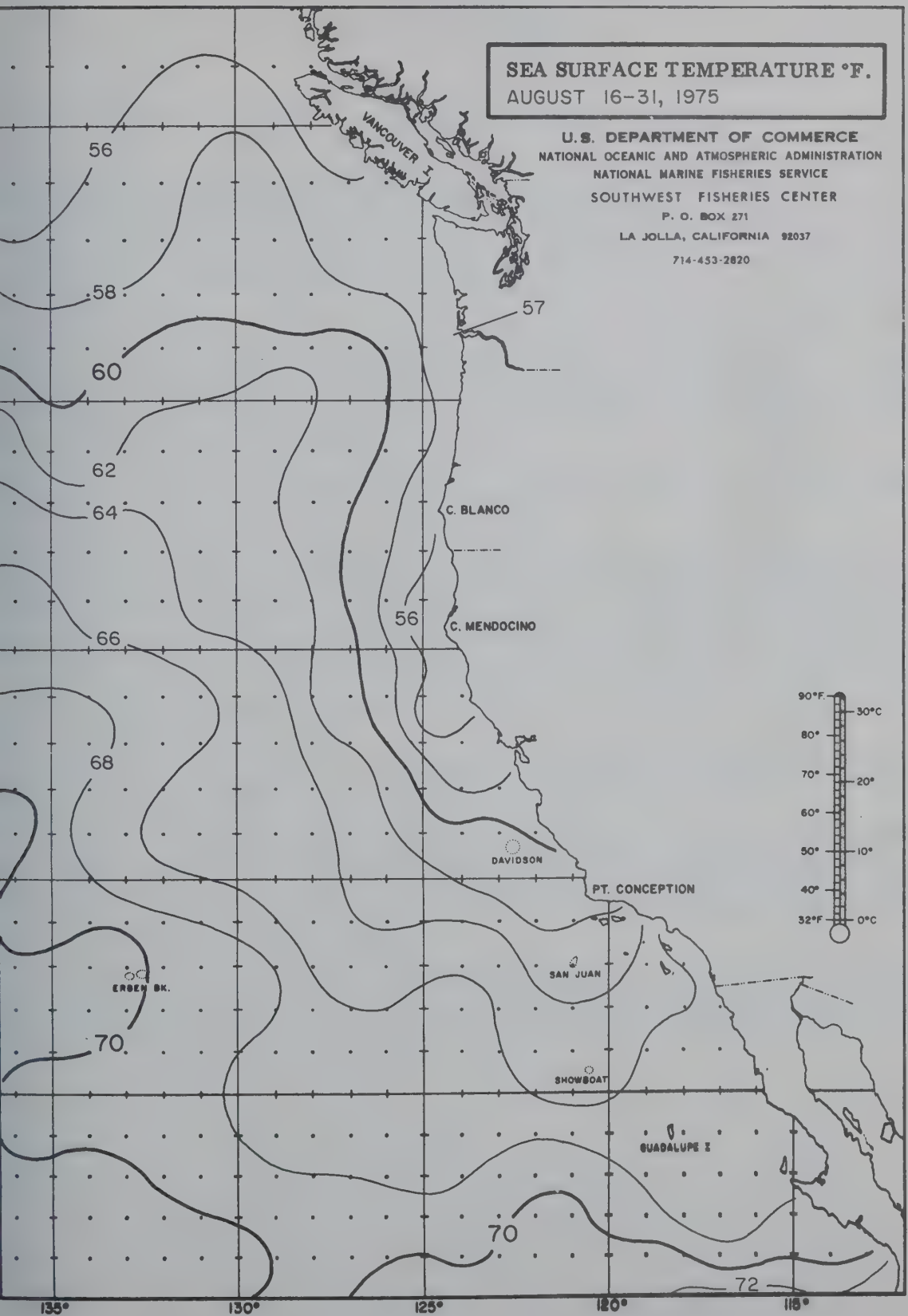

UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Center
La Jolla, California 92038

BULLETIN No. 75-4

GOOD ALBACORE FISHING REPORTED OFF NORTHERN BAJA CALIFORNIA AND PACIFIC NORTHWEST

Most albacore fishing during the last 2 weeks of July was in the San Benitos Island - Geronimo Island area and rom Point Arena to Cape Cook. Catches in all areas were mainly on 10-12 pound albacore; however, 20-30 pound fish ere being caught off Baja California and in the area off the Columbia River during the last week of July. It is stimated that 30-50 commercial jigboats fished in the vicinity of San Benitos Island - Geronimo Island during the ast half of July. Although reports have been sparse, it appears that fishing in this area was consistent with daily cores generally being 60-200 fish per boat and sometimes higher. However, at the end of the month sea surface emperatures increased, fishing became spotty and catches dropped sharply. As a result of poor fishing, boats began o move northward.

The majority of the albacore jig fleet fished from Point Arena to Cape Cook during July. While very good scores ere reported from this large area on some days, fishing was often spotty. A large fleet worked the Point Arena - ape Mendocino area from July 15-19 where boats averaged 50-200 fish per day. During this same period, top catches f 80-200 fish were reported off Eureka, Crescent City, Coos Bay, Astoria and Gray's Harbor. The fleet of albacore igboats that was fishing in the Point Arena - Cape Mendocino area gradually moved northward as top catches of 400-600 er day were made off Crescent City and Coos Bay, and in the Cape Lookout - Gray's Harbor area. Generally, jigboats veraged 70-200 fish per day. Baitboats were also catching up to 3-4 tons and as high as 11 tons of albacore a day ff Gray's Harbor during the last few days of July.

Thus far this season, jig fishing north of Cape Flattery has been inconsistent with good fishing reported only n occasional days. Surface water temperatures in this area have been about 59°F (15°C). Poor weather conditions ampered fishing in this area for much of the last week of July.

The American Fishermen's Research Foundation's chartered jigboats left port in the third week of July. The unrise departed Astoria on July 17 and worked northward to Cape St. James and then south to northern Oregon. Surface ater temperatures were 55-57°F (12.8-13.9°C) north of Vancouver Island in mid-July and no fish were caught. Best atches by the Sunrise were 101 fish on July 25 about 180 miles west of Cape Flattery in 58°F (15°C) water and 124 nd 320 fish on July 30 and 31 about 150 miles west of the Columbia River. The Kamchatka and Lady Olga left San iego on July 19 and scouted south to the Guadalupe Island area. Best scores were 133 and 122 fish reported by one oat on July 21-22 while fishing 50 miles southwest of Geronimo Island in 63-64°F (17.2-17.8°C) sea surface tempera- ure waters. The two boats in the southern area were scouting for albacore west-southwest of San Diego on July 31.

It is estimated that somewhat more than 2,000 tons of albacore have been landed thus far this season by commer- ial boats. About 300-350 tons have been landed in southern California and the majority of the remainder at ports in he Pacific Northwest.

San Diego sportboats continued to enjoy good fishing mainly on 10-12 pound albacore with only a few larger fish. est sportfishing was reported from 60-90 miles south and south-southwest of San Diego. Averages have been approxi- ately 1-2 fish per passenger daily and total daily catches have been up to 2,300.

Seasonal warming occurred at above normal rates in waters offshore western North America throughout the second alf of July causing sea surface temperatures to increase by 1-6°F (0.6-3.3°C). The greatest increase occurred in aters between Vancouver Island and central California and out to about 350 miles offshore, where temperatures rose t 2-4°F (1.1-2.2°C) above normal rates. Another area of above normal warming occurred offshore southern California here temperatures increased at 2-3°F (1.1-1.7°C) above normal rates. This excess warming reversed the relatively ool conditions that had persisted through the late spring and early summer and sea surface temperatures are now bove normal along much of the North American coast.

According to the Long Range Prediction Group of the National Weather Service, sea level pressures are expected o be slightly above normal over the eastern North Pacific during August with a ridge of high pressure extending ortheastward over the Pacific Northwest. Air temperatures over the inland valley and desert regions of the western oastal states are expected to be much above normal throughout the month. These conditions will cause frequent eriods of strong north to northwesterly winds and rough seas along the southern Oregon and California coasts.

ugust 1, 1975

Staff, Albacore Fisheries Program
R. Michael Laurs, Leader

UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Center
La Jolla, California 92038

BULLETIN No. 75-5

ALBACORE FISHING CENTERED IN PACIFIC NORTHWEST

During the past 2 weeks most of the albacore jigboat fleet operated in waters off the Pacific Northwest from Blanco to Cape Flattery. Most of the catches were reported from waters 40-120 miles offshore from Coos Bay to ta Head, Cape Lookout to the Columbia River, off Grays Harbor and west of Cape Flattery. Top daily catches were rally 200-500 fish with averages of 50-250 fish/boat/day in rough seas. Albacore from these locations were of d sizes as 10-12 pound fish were caught along with 16 and 25-26 pound albacore. Albacore unloaded in the Pacific hwest during this period averaged 12-15 pounds. Baitboats were also fishing from Grays Harbor to Cape Cook and spotty fishing. Good catches, however, were reported on some days and average scores of 3-4 tons were heard for st 5 and 9. High catches of up to nearly 30 tons were also reported. Fishing off California, meanwhile, was rally poor as very little fishing effort was expended south of Crescent City. Weather conditions were also poor Point Conception to northern California.

During the first half of August one of the American Fishermen's Research Foundation's (AFRF) chartered jigboats ed from the Columbia River to Cape Cook, Vancouver Island and the remaining two jigboats fished from southwest an Diego to San Francisco. Fishing was slow as these boats scouted for albacore away from the fishing fleet. jigboat in the Pacific Northwest caught 15-320 fish daily from July 31 - August 9 while fishing 40-150 miles off- e. Its only catch of better than 100 fish was made on July 31 about 150 miles west-southwest of the Columbia r and the smaller catches were made near Cape Cook where fishing conditions were reported to be poor. The two s off southern and central California worked together for most of August and reported total daily catches of l fish while fishing in rough seas out to 350 miles offshore. Their best fishing was near San Juan Seamount on st 3-4 when their total catch was 231 and 187, respectively. These fish averaged 10-11 pounds. On August 8 boat returned to port and the other continued northward to the Davidson and Guide Seamounts. Catches in this were 40 and 48 fish on August 10 and 11. The third chartered boat entered port on August 12.

The San Diego sportboat fleet continued to have good fishing from 50-75 miles south of San Diego. Passengers hese boats averaged about 1-2 fish a day and the best total catches were slightly over 2,000 fish. Most of the core being landed are 10-15 pounds, but larger fish are also being caught.

Strong northerly winds offshore the U.S. west coast during the first half of August retarded seasonal warming uch of the eastern North Pacific, that is between the coast and 135°W longitude. These winds also caused in- sed upwelling and a decrease in sea surface temperature by 2-6°F (1.1-3.3°C) from San Francisco north to ouver Island. Consequently, sea surface temperatures that were above normal during the last half of July are 2-4°F (1.1-2.2°C) below normal and show a return to the cool water conditions that have prevailed in the eastern h Pacific since the fall of 1974.

According to the Long Range Prediction Group of the National Weather Service, sea level pressures are expected e above normal over the eastern North Pacific with a ridge of high pressure extending over the Pacific Northwest mid-August through mid-September. These conditions should produce fairly light winds and good weather for ing from Cape Flattery south to Cape Blanco. However, the high pressures offshore, coupled with above normal ing over the inland valley and desert regions of the Pacific Southwest, will cause strong north to northwesterly s and rough seas along the southern Oregon and California coasts.

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